

IN THE CLAIMS

Upon entry of the present Amendment, the status of the claims will be as is shown below. This listing of claims replaces all previous versions and listings of claims in the present application.

Claims 1-3 (Cancelled)

4. (New) An illumination apparatus, comprising:

a power source device comprising a current controller, and
an illumination head, connected to the power source device, and
comprising a current detection resistor that detects current flowing through a
power supply circuit, at least one light emitting device being connected to the
power supply circuit in the illumination head,

wherein a resistance value of the current detection resistor is selected so
as to cause a voltage drop equal to a predetermined reference potential when a
rated current is supplied to each light emitting device, and

wherein the current controller controls the supplied current such that a
potential for the voltage drop caused in the current detection resistor is equal to
the predetermined reference potential.

5. (New) An illumination head, comprising:

at least one light emitting device connected to a power supply circuit; and
a current detection resistor that detects a current flowing in the power

supply circuit, a resistance value of the current detection resistor being selected so as to cause a voltage drop equal to a predetermined reference potential when a rated current is supplied to each light emitting device.

6. (New) A power source device that supplies power to an illumination head, comprising:

a current controller;

wherein the illumination head includes a current detection resistor that detects a current flowing to a power supply circuit in which at least one light emitting device is connected, a resistance value of the current detection resistor being selected so as to cause a voltage drop equal to a predetermined reference potential when a rated current is supplied to each light emitting device, and

wherein the current controller is disposed such that a potential of the voltage drop caused in the current detection resistor is equal to the predetermined reference potential when the illuminating head is connected to the power source device.

7. (New) An illumination apparatus as recited in claim 4, wherein the supplied current is controlled to be a rated current of the illumination head when the illumination head is connected to the power source device.

8. (New) An illumination head as recited in claim 5, wherein the supplied current is controlled to be a rated current of the illumination head when the

illumination head is connected to the power source device.

9. (New) A power source device as recited in claim 6, wherein the supplied current is controlled to be a rated current of the illumination head when the illumination head is connected to the power source device.

10. (New) An illumination apparatus as recited in claim 4, wherein a constant voltage is output from the current detection resistor for each of a plurality of illumination heads with different rated currents.

11. (New) An illumination head as recited in claim 5, wherein a constant voltage is output from the current detection resistor for each of a plurality of illumination heads with different rated currents.

12. (New) A power source device as recited in claim 6, wherein a constant voltage is output from the current detection resistor for each of a plurality of illumination heads with different rated currents.